(54) HETEROCYCLIC COMPOUNDS, PROCESS FOR THEIR PREPARATION AND PHARMACEUTICAL COMPOSITIONS CONTAINING THEM AND THEIR USE IN THE TREATMENT OF DIABETES AND RELATED DISEASES

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(56) References Cited

U.S. PATENT DOCUMENTS

4,342,771	8/1982	Schnur 424/263
4,367,234	1/1983	Schnur 424/272
4,725,610	2/1988	Meguro 514/369
4,873,255	10/1989	Yoshioka 514/369
5,002,953	3/1991	Hindley 513/275
5,036,079	7/1991	Clark 514/333
5,037,842	8/1991	Goldstein 514/375
5,130,379	7/1992	Clark 514/333
5,153,210	10/1992	Ainsworth 514/369
5,296,605	3/1994	De Nanteuil 546/369
5,330,999	7/1994	De Nanteuil 514/176
5,420,146	5/1995	Malamas 514/364
5,468,762	11/1995	Malamas 514/376
5,478,851	12/1995	Cantello 514/369
5,478,852	12/1995	Olefsky 514/369
5,478,853	12/1995	Regnier 514/369
5,480,896	1/1996	Malamas 514/364
5,498,621	3/1996	Dow 514/369
5,521,201	5/1996	Hindley 514/369
5.521,202	5/1996	Yano 514/369
5,710,152	1/1998	Nagao et al 514/225.2
-,,	-,	

FOREIGN PATENT DOCUMENTS

570067 3/1985 (AU).

008203A 2/1980 (EP) . 5355524 8/1984 (EP) . 0139421 5/1985 (EP) .

(List continued on next page.)

OTHER PUBLICATIONS

Hisatome et al. (CA 119:249760, abstract of Chem. Lett. (1993), (8), 1357-7022).*

Rise et al. (CA 112:98478, abstract of Acta Chem Scand. (1989), 43(5), 489–92).*

Khan A. et al. (CA 110:189240, abstract of Pharmazie (1988), 43(12), 864-865), 1993.*

Chemical Abstracts 93:168217v, 1980 Oct. 27, 1980.

Shukla, et al., Indian J. Chem. vol. 17B, Jun. 1979, p. 651-652.

Husain, et al., Pharmazie 37, H6 (1982) p. 408-410.

Khan et al., Pharmazie (1988) vol. 43 (12), p. 864-5.

G. De Nanteuil, "Euglygaemic and Biological Activities of Novel Thiazolidine-2,4-dione Derivatives" Arzneittel Forschung/Drug Design, vol. 45, No. II, 1995, p. 1176-1181.

Whitcomb, R. W., "Thiazolidnediones", Expert Opionion on Investigational Drugs, vol. 4, No. 12, Dec. 1995, p. 1299–1309.

English Translation of JP-A-0912575.

Behavioral Brain Research, 75 (1996) p. 1-11, Messier, et al.

(List continued on next page.)

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57) ABSTRACT

The present invention relates to novel antidiabetic compounds, their tautomeric forms, their derivatives, their stereoisomers, their polymorphs, their pharmaceutically acceptable salts, their pharmaceutically acceptable solvates and pharmaceutically acceptable compositions containing them. This invention particularly relates to novel azolidinedione derivatives of the general formula (I), and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates and pharmaceutical compositions containing them.